

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

U.S.-CHINA COMPETITION FOR ENERGY RESOURCES

by

David C. Perez

December 2009

Thesis Advisor: Letitia Lawson Co-Advisor: Alice Miller

Approved for public release; distribution is unlimited

REPORT DOCUMENTATION PAGE Form Approved OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503. 2. REPORT DATE 3. REPORT TYPE AND DATES COVERED 1. AGENCY USE ONLY (Leave blank) December 2009 Master's Thesis **4. TITLE AND SUBTITLE** U.S.-China Competition for Energy Resources **5. FUNDING NUMBERS** 6. AUTHOR(S) David C. Perez 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORGANIZATION Naval Postgraduate School REPORT NUMBER Monterey, CA 93943-5000 9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) 10. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A 11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. 12a. DISTRIBUTION / AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE Approved for public release; distribution is unlimited 13. ABSTRACT (maximum 200 words) This thesis examines the likelihood of conflict between the U.S. and China given their competition for energy

This thesis examines the likelihood of conflict between the U.S. and China given their competition for energy resources in Africa. The main argument in this thesis is that economic interdependence between these countries has gradually produced increasing levels of cooperation over a period of three decades, reducing the likelihood of conflict. Furthermore, it asserts that historical wars over resources between major powers are less likely in contemporary times due to the transformation of the international landscape since World War II, resulting in an environment more conducive for cooperation between interdependent countries. The cooperation that has emerged between the U.S. and China in an array of fields creates a positive environment for tackling mutual energy resource challenges cooperatively. Finally, a series of recommendations are offered about ways to maximize cooperation and minimize challenges in this relationship.

14. SUBJECT TERMS U.SCHINA Competition, Energy Resources, Economic Interdependence, Africa			15. NUMBER OF PAGES 71			
	_	_	16. PRICE CODE			
17. SECURITY	18. SECURITY	19. SECURITY	20. LIMITATION OF			
CLASSIFICATION OF	CLASSIFICATION OF THIS	CLASSIFICATION OF	ABSTRACT			
REPORT	PAGE	ABSTRACT				
Unclassified	Unclassified	Unclassified	UU			

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

Approved for public release; distribution is unlimited

U.S.-CHINA COMPETITION FOR ENERGY RESOURCES

David C. Perez Lieutenant, United States Navy B.S., Excelsior College, 1999

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF ARTS IN SECURITY STUDIES (FAR EAST, SOUTHEAST ASIA, THE PACIFIC)

from the

NAVAL POSTGRADUATE SCHOOL December 2009

Author: David C. Perez

Approved by: Letitia Lawson, PhD

Thesis Advisor

Alice Miller, PhD

Co-Advisor

Harold A. Trinkunas, PhD

Chairman, Department of National Security Affairs

ABSTRACT

This thesis examines the likelihood of conflict between the U.S. and China given their competition for energy resources in Africa. The main argument in this thesis is that economic interdependence between these countries has gradually produced increasing levels of cooperation over a period of three decades, reducing the likelihood of conflict. Furthermore, it asserts that historical wars over resources between major powers are less likely in contemporary times due to the transformation of the international landscape since World War II, resulting in an environment more conducive for cooperation between interdependent countries. The cooperation that has emerged between the U.S. and China in an array of fields creates a positive environment for tackling mutual energy resource challenges cooperatively. Finally, a series of recommendations are offered about ways to maximize cooperation and minimize challenges in this relationship.

TABLE OF CONTENTS

I.	U.S.	AND CHINA'S COMPETITION FOR OIL RESOURCES IN AFRICA	1
II.	U.S.	-CHINA RELATIONS	11
	A.	ECONOMIC INTERDEPENDENCE	11
	В.	U.S. CHINA ECONOMIC RELATIONS, COOPERATION AND	
		REDUCTION IN CONFLICT	
	C.	1990–2000	24
III.	COI	NCLUSION	35
	A.	IMPLICATIONS FOR U.SCHINA RESOURCE COMPETITION	
		IN AFRICA	36
	В.	RECOMMENDATION	39
APPI	ENDIX	K. U.S. INVESTMENT IN CHINA	43
LIST	OF R	EFERENCES	47
INIT	IAL D	ISTRIBUTION LIST	55

LIST OF TABLES

Table 1. U.S.-China post-1950s Economic Relations, Challenges and Cooperation. ...34

LIST OF ACRONYMS AND ABBREVIATIONS

APP Asia Pacific Partnership on clean Development and Climate

CSLF Carbon sequestration Leadership Forum

DOE Department of Energy

FDI Foreign Direct Investment

GATT General Agreement on Tariffs and Trade GNEP Global Nuclear Energy Partnership

GNP Gross National Product

IEF International Energy Forum IMF International Monetary Fund

IPHE International Partnership for the Hydrogen Economy

MFN Most Favorite Nation
MNC Multinational Corporations

NATO North Atlantic Treaty Organization

NDRC National Development and Reform Commission

PRC People's Republic of China

SDPC State Development Planning Commission

U.S. United States

USTDA U.S. Trade and Development Agency

WTO World Trade Organization

ACKNOWLEDGMENTS

First and foremost, I want to extend my sincere appreciation to Dr. Lawson for offering expert advice, always providing me quick feedback, and frankly, getting the best out of me. I also want to thank my co-advisor, Dr. Miller who also gave me good advice and was always quite flexible. Additionally, I would like to thank Professor Weiner for providing me with great advice during the development of the thesis proposal. Thank you, Professor Lober for making me a better writer. Furthermore, thanks to the rest of the staff at National Security Affairs, Far East Department. You are the best team of professionals I have ever met. Thank you for your dedication in building an educated Officer Cadre. Finally, I want to thank my wife, Cristina, and children who sacrificed time away from Dad while I completed this thesis.

I. U.S. AND CHINA'S COMPETITION FOR OIL RESOURCES IN AFRICA

In recent years, China has experienced impressive economic growth, and as a consequence, it has changed from a net oil exporting country to one that is increasingly dependent on imported energy resources.¹ Recent discovery of oil in African countries and their territorial waters has attracted several countries to this region, as oil-importing countries have begun to consider Africa as an alternative to more unstable security environment in other energy-rich regions of the world.² In particular, Africa is of interest to the United States (U.S.) and China because of its relatively inexpensive and high quality crude oil, and therefore the potential it offers in fueling each country's economic engine.³

Although most of this oil is sold in the open market, the manner in which China is gaining access to energy resources in this region has created concern in the U.S. The Bush administration described Chinese attempts to gain access to global energy resources as "acting as if they can somehow 'lock up' energy supplies around the world or seek to direct markets rather than opening them up—as if they can follow a mercantilism borrowed from a discredited era," suggesting an adverse impact on U.S. interests.⁴ Analysts who believe that China will eventually become a power capable of balancing against the U.S. are particularly concerned about its current search for energy resources.⁵ Some among the U.S. political circles have also expressed concerns about the implications for the U.S. of China's influence on global economic markets and its growing military capability. Oil consumption is expected to continue to increase in both

¹ Vaclav Smil, *China's Past, China's Future: Energy, Food, Environment* (London: Rutledge Curzon, 2004); Gus Luft, "Fueling the Dragon: China's Race into the Oil Market," (2007), http://www.iags.org/china.htm.

² Alex Perry, "Africa's Oil Dream," *Time Magazine*, May 31, 2007.

³ Christopher Thompson, "The Scramble for African Oil," (2007), http://www.globalpolicy.org/empire/economy/2007/0614scrambleoil.html.

⁴ National Security Strategy of the U.S. of America, March 2006.

⁵ Fred Bergsten, "A Partnership of Equals," Foreign Affairs 87, no. 4 (2008).

countries while global energy resources diminish.⁶ These circumstances lead some to assert that the U.S. and China are on a collision course, especially where they compete for energy resources in the same area.⁷ The prospect of competition for scarce energy resources leading to military confrontation between these two great powers makes this a topic of national interest to both counties.⁸ How likely is conflict between the U.S. and China as energy resources diminish? This thesis argues that the high degree of economic interdependence between U.S. and China makes the cost of going to war over resources very high; thus, reducing the likelihood of conflict and increasing incentives for greater cooperation in other areas.

The literature on economic interdependence and international conflict falls into two major camps: liberal and realist. The main debate between liberals and realists is over whether economic interdependence prevents, reduces or has no affect at all on the likelihood of conflict. Liberals assert that as countries open their markets and deepen exchange with others they become less likely to engage in conflict. Liberals also contend that the greater the level of economic interdependence between two countries, the less likely they are to go to war. Essentially, this argument asserts that the cost of going to war between two highly trade interdependent countries is so high that both sides work to resolve tensions without the use of force. Some liberal scholars also argue that as trade and foreign investment increase, there is less reason for engaging in territorial expansion and imperialism. Others assert that economic institutions link countries together in an

⁶ Colin Campbell, "The Coming Global Oil Crises," *Global Policy Forum*, http://www.oilcrisis.com/Campbell.

⁷ John Ghazvinian, *Untapped: The Scramble for Africa's Oil* (Orlando: Harcourt, 2007).

⁸ Michael Klaire, *Resource Wars: The New Global Landscape of Global Conflict* (New York: Henry Holt and Company, 2001), 213. He argues that resource wars will become, in the years ahead, the most distinctive feature of the global security environment." Furthermore, he states, that there is "a new emergence of a new geography of conflict—a global landscape in which competition over vital resources is becoming the governing principle behind the disposition and use of military power."

⁹ Dale Copeland, "Economic Interdependence and War: A Theory of Trade Expectations," *International Security* 20 (1996).

¹⁰ Richard Rosencrance, *The Rise of The Trading State: Commerce and Conquest in the Modern World* (New York: Basic Books, 1986).

environment conducive to greater communication and dialogue, which can lead to the realization of mutual interest and common values.¹¹ Another liberal argument is that the economic relationship between domestic actors leads to political cooperation.¹²

Realist theorists dismiss the liberal perspective, stressing relative power as the key factor affecting the likelihood of conflict. They argue that greater economic interdependence produces greater friction between economic partners, which increases the chance of war. 13 They also discount the importance of low-level interactions, such as economic partnerships and cooperation. Realists claim that in an anarchic" international environment countries place a greater premium on security issues. Barbieri's study of 270 militarized interstate disputes and 14 wars finds that extensive economic interdependence actually increases the likelihood that countries will engage in military disputes. 14 Moreover, realists emphasize the experience of historical Great Wars between nations that had been engaged in significant trade prior to conflict.

Some argue that that competition over scarce resources in particular significantly increases the probability of war. Klare contends that resource competition played a significant role in war historically, from the colonial expansions of the 15th century to World Wars I and II.

The great colonial expansion by the European powers that began in the 15th century and continued until the early 19th century was largely driven by the pursuit of resources—land, timber, gold, minerals, spices, slaves, furs, rubber, and oil, among others—and this outward drive often sparked clashes with the indigenous inhabitants of these territories, as well as among the imperial powers themselves. What we call the French and Indian War (the Europeans call it the Seven Years War), for instance, was

¹¹ Bruce Russett and John O'Neal, *Triangulating Peace: Democracy Independence and International Organizations* (New York: W.W. Norton. Solomon Benjamin, 2001).

¹² Michael Doyle, *Ways of War and Peace: Realism, Liberalism, and Socialism* (New York: W.W. Norton & Company, 1997).

¹³ Kenneth Waltz, *The Myth of National Interdependence, The International Corporation*, ed. C. Kindleberger (Cambridge: MIT Press, 2007), 205–23.

¹⁴ Katherine Barbieri, "Economic Interdependence: A Path to Peace or a Source of Interstate Conflict?" *Journal of Peace Research* 33, no. 1 (1996): 29–49.

sparked by conflict between Great Britain and France over the control of resource-rich territories in North America, India, Africa, and Asia. Many of the skirmishes that led up to World War I, especially those arising in Africa, also had this character.¹⁵

Engdahl argues that competition over oil resources contributed to World War I, as Great Britain felt its global hegemony threatened by Germany's rapid ascent as a formidable power, based on its technologic boom and rapid population growth. ¹⁶ In the years before the war, Germany and Britain began to compete for access to the newly discovered "rock oil" in the Middle East, which was vital to fueling the most advanced vehicles and vessels of the time. Germany's growing dependence on imported oil led it to ally with the declining Ottoman Empire, and broker a deal to build a railway from Berlin, through Anatolia, to Baghdad, which would have served its need for oil. ¹⁷ Before the last portion leading into Baghdad could be completed, Great Britain reacted to this perceived threat to its interests in oil-rich Mesopotamia (Iraq) by sending troops into Baghdad. Seeing their chance for access to oil resources cutoff, and realizing that the Russian military was weakened because of civil war, Germany and the Ottomans moved into the oil rich Caucasus regions of Batum and Baku. This oil rich region was now contested by Russia, Britain and Germany, and Engdahl concludes that Germany's demise during its final offensive was a result of insufficient access to Romanian and Baku oil. ¹⁸

On the other side of the world, according to Fisher, competition for oil resources was also becoming intense. The epicenter of oil interests in this area was Sakhalin Island. "There were ... four countries and one private party interested in the Sakhalin petroleum: Russia, which owned the petroleum, Japan, which wanted it, Great Britain, which upheld a rather flimsy claim to it of the Royal Dutch-Shell; Harry F. Sinclair, who had a

¹⁵ Michael Klare, *Resource Wars: The New Global Landscape of Global Conflict* (New York: Henry Holt and Company, 2001).

¹⁶ William Engdahl, *A Century or War: Anglo-American Oil Politics and the New World Order* (Pluto Press, 2004), 14.

¹⁷ Ibid., 18.

¹⁸ Ibid., 39.

concession for it, and the U.S."¹⁹ Japan had won the southern part of the Island in the Russo-Japanese war, but refused to evacuate from the north until it was able to gain oil concessions from Russia. According to Henry Sasaki, secretary of the Japanese Embassy in Moscow, "Japan was purchasing large quantities of oil from the United State and other countries but that these, even taken together with Japan's domestic yields, did not cover the nation's needs. American oil is too costly as it is transported over 5,000 miles. Therefore the Sakhalin oil is of great importance to Japan especially since the Japanese port of Hokkaido is only 400 miles away."²⁰ Fisher claims that this competition led directly to World War II.

Finally, Klare claims that Japan attacked Pearl Harbor in 1941 to preempt U.S. intervention in Japan's quest to take the vital oil resources of the Dutch East Indies due to its vital oil resources. ²¹ Japan had been isolated from the West during most of the 19th century, when Western powers carved out their interests in the rest of Asia. During the Meiji reign (1868–1910), Japan underwent major transformation and modernization, amidst an explosive industrial boom. It was almost entirely dependent on imported oil, receiving 80 percent of its consumption needs from the U.S., and 13 percent from Indonesia. ²² Resource competition, heightened by British, French, and American policies that limited German and Japanese (and Italian) access to important resources, is seen to have played an important role in the lead up to WWII. ²³ All of these countries had been protectionist during the 1930s, creating a situation in which Germany found itself surrounded by powers fighting a trade war. Similarly, Japan's invasion of southern Vietnam in 1941 prompted an economic embargo by the U.S. and the Dutch East Indies, placing Japan in a desperate situation.

¹⁹ Louis Fisher, *Oil Imperialism: the International Struggle for Petroleum* (London: George Allen & Uniwin, 1926), 180.

²⁰ Ibid.

²¹ Henry Sakaida, *Imperial Japanese Navy Aces, 1937–45* (Oxford: Osprey Publishing Limited, 1998), 18.

²² Yuichi Arima, "The Way to Pearl Harbor: U.S. vs. Japan," *Inventory of Conflict and Environment Case Studies* 118 (December 2003), http://www.american.edu/TED/ice/japan-oil.htm#table.

²³ J. W. Smith, *Economic Democracy: The Political Struggle of the 21st Century*, Chapter 5, 4th ed. (The Institute for Economic Democratic Press, 2005), http://www.ied.info/wp-content/uploads/economic-democracy.pdf.

Klare, Engdahl and others suggest that America's quest for resources is similar to those that preceded the wars of the twentieth century. They argue that U.S. interventions in the Middle East to protect access to energy resources mirror British efforts a century earlier.²⁴ Klare also suggests that China's search for oil mirrors that of Germany during the lead up to both World Wars. Based on these historical analogies, Klare contends that future wars will be power struggles among great powers over petroleum and other dwindling resources.²⁵ He points specifically to U.S. and China's behavior patterns and policies regarding resources to illustrate the potential for conflict between these countries as resources diminish, noting that U.S. foreign policy has historically reflected a commitment to using military force to protect America's access to oil resources abroad.²⁶ In work with Daniel Yergin, he offers evidence in support of that claim from the Carter Doctrine to U.S. military intervention in Iraq.²⁷ Finally, in his latest book he adds that Russia's growing influence as an energy superpower, coupled with China and India's rapid economic rise, will lead to a new Cold War environment that is likely to result in conflict among these countries.²⁸

David Victor, noting that much of what has been written on the potential for resources wars in the 21st century is "very much conjecture and speculation," argues that resource wars are actually rare, and when resource competition does lead to conflict it often does so as one part of a complex multi-causal phenomena.²⁹ He also notes that oil in particular is a fungible commodity. For example, China sells most of the oil it extracts in Africa on the international market, where it sells to the nearest buyer for at a price set

²⁴ William Engdahl, *A Century or War*.

²⁵ Michael Klare, *Resource Wars: The New Global Landscape of Global Conflict* (New York: Henry Holt and Company, 2001).

²⁶ Michael Klare, *Blood and Oil: The Dangers and Consequences of American's Dependency on Imported Oil* (New York: Metropolitan Books, 2005).

²⁷ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1991).

²⁸ Michael Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy* (New York: Metropolitan Books, 2008), 36; Vijay Prashad, "A New Cold War Oil," *Frontline* (2007), http://www.globalpolicy.org/empire/intervention/2007/0812newcw.htm.

²⁹ David Victor, "What Resource War?," http://www.nationalinterest.org/Article.aspx?id=16020.

by the market.³⁰ Victor states that "the best estimates suggest that only about one-tenth of the oil produced overseas by Chinese investments (so-called "equity oil") actually makes it back to the country."³¹ Pressure from the International Energy Agency and other world trade partners force China to manage tensions that arise over oil rather than engage in conflict, while China's strategy to lock in oil resources in Africa have been tamed by other external pressures. For example, China has decided to no longer use its veto in the United Nations Security Council to protect Sudan's government, who has been under international scrutiny for ethnic cleansing.³²

Given the dramatic differences in the global trade regime of the two centuries and the role that protectionism and economic embargos played in exacerbating resource competition in the past, the superficial historical parallels suggested by realists are of limited value. Indeed, in the 21st century, resource conflicts have taken the form of *civil* wars over water, timber, diamonds and control over energy resources in weak states with corrupt governments, primarily in Africa and the Middle East. Therefore, the potential for conflict because of resource competition needs to be assessed in light of current global condition factors.

This thesis builds on Victor's critique and insights, but focuses on a different limiting factor in the international system of the 21st century: economic globalization and the unprecedented economic interdependence it has produced. It argues that economically interdependent countries have a low probability of war both because the costs of war between such countries are likely to be greater than the benefits to be won and because others states in a globalized economy would be forced to pay part of the cost of such a war, and thus would work to avoid it. In short, the international economic system has been transformed over the half century in such a manner that it makes going to war over resources, especially between economically interdependent states, much less likely than it was in the WWI and WWII periods.

³⁰ Smith, *Economic Democracy: The Political Struggle of the 21*st Century.

³¹ David Victor, "What Resource War?," http://www.nationalinterest.org/Article.aspx?id=16020 accessed November 17, 2008.

³² Smith, Economic Democracy: The Political Struggle of the 21st Century.

Globalization has evolved in two main waves with an interim period of slowdown between the world wars. The first wave occurred from approximately 1870 to 1913. This period was driven by mobility in international capital flow and labor, as well as immigration to Western countries and a series of innovations in the transportation industry. After being interrupted by a period of protectionism, globalization surged after WWII, pushed by the economic policies of the U.S. and its Western partners and by international institutions established to prevent a reoccurrence of the destructive economic policies of the 1930s. The General Agreement on Tariffs and Trade (GATT)—the predecessor of the World Trade Organization (WTO), International Monetary Fund (IMF), World Bank and others helped create greater levels of globalization—trade liberalization, open markets and economic integration and interdependence.

These institutions contributed significantly to the reduction of tariffs and economic reforms that resulted in an increase in capital flows and foreign direct investment. "[T]he average tariff level after WWII was reduced from 40 percent in 1946 to about 5 percent in 1992. As a result, total real exports grew by 14 times during the same period. Moreover, U.S. total trade levels equaled less than 10 percent of its gross national product (GNP) in the early 1950s, but it reached almost 25 percent of GNP at the end of the 1990s."³⁴ "Capital flows averaged about \$384 billion from 1980–1994 ... and jumped to about \$1.7 trillion in 1996."³⁵ "Global FDI consisted of 12 percent of global capital flows in the early 1980s and grew to about 25 percent in early to mid-1990s."³⁶

The opening of China to the global market in the 1980s significantly increased the degree of economic globalization: its economy has grown 12 fold, and its trade with the rest of the world has increased by a factor of 30.³⁷ China's total trade is equal to

³³ Das K. Dilip. "The Economic Dimension of Globalization," Chapter 2, 31, http://www.eclac.cl/publicaciones/xml/0/10030/Globalization-Chap2.pdf.

³⁴ Joseph Grieco, *The International Political Economy since World War II* (Duke University, 2000), 2–3.

³⁵ Ibid., 2–3.

³⁶ Ibid., 7.

³⁷Anthony Venables, "The China Effect," *Centre Piece* (2006), http://cep.lse.ac.uk/pubs/download/CP208.pdf, 11.

approximately 70 percent of its GDP.³⁸ Its competitive advantage has provided the rest of the world with access to lower priced consumer goods, increasing trade/GDP ratios in many countries, including the U.S.

The remainder of the thesis will argue that these forces of globalization have created a web of countries and institutions that work together to address tensions before they escalate to war. Chapter II looks at how increasing economic interdependence has affected the level and nature of cooperation between U.S. and China. Finally, Chapter III concludes by returning to current resource competition between the U.S. and China in Africa, using the findings from the case studies to explore the likelihood of conflict and/or cooperation. Furthermore, the concluding chapter offers a list of recommendations for both countries to consider in the future.

³⁸ Venables, "The China Effect," 13.

II. U.S.-CHINA RELATIONS

This chapter examines the role the economic relationship between U.S. and China has played in creating a growing spirit of cooperation, which in turn has muted tensions between the two nations since the mid-twentieth century. The first section compares the current level of U.S.-China economic interdependence to that of countries that went to war in the two World Wars. The second section provides a brief review of the effects of globalization on China's integration with the world, economic growth, and global cooperative behavior. The third section demonstrates that closer U.S.-China economic relations have led to increasingly proactive and effective management of conflict, as well as increased cooperation in areas other than economics. The evidence will show that as the U.S.-China economic relationship increased so did their level of cooperation. As cooperation grew, the two countries were increasingly willing and able to manage tensions as they emerged, thus avoiding escalation toward conflict.

A. ECONOMIC INTERDEPENDENCE

The main indicators of economic interdependence are global trade as a percentage of GDP for each, U.S.-China bilateral trade as a percentage of total trade for each, and U.S. dependence on China for financing of its national debt. Debt financing is not normally included as a measure of interdependence, but it is an important one in the U.S.-China case. China currently holds 20 percent of total foreign-held U.S. Treasury debt and 23 percent of U.S. agency and government–sponsored enterprise securities.³⁹ As a result, U.S. dollar-denominated assets, mostly U.S. Treasury bills and bonds, comprise almost 80 percent of China's foreign reserve holdings.⁴⁰ On all three measures, U.S.-China economic interdependence has grown from virtually zero in 1950 to historically unprecedented levels in the 2000s. As this interdependence grew, the relationship shifted

³⁹ James Dorn, "The Debt Threat: A Risk to U.S.-China Relations?" *Brown Journal of World Affairs* 14, no. 2 (2008): 151.

⁴⁰ Wayne Morrison, "China-U.S. Trade Issues," *Report for the Congressional Research Service* (2009): 1, http://www.fas.org/sgp/crs/row/RL33536.pdf.

from a primarily political focus to a fundamentally economic one. During the last two decades, the relationship has also grown to encompass other areas of mutual and global interests, such as combating proliferation of weapons of mass destruction, terrorism, taming rogue regimes like North Korea, and cooperating in the field of energy and environment. As communism has taken a backseat to economic growth, the CCP has come to view maintaining economic growth and prosperity as critical to its political survival. Therefore, great emphasis has been placed on safeguarding the economic relationship with the U.S. in order to ensure continued economic growth. Similarly, U.S. election outcomes are fundamentally affected by economic performance and the U.S. has come to view China as a critical market for a growing demand of America's domestic consumers and investors, and an important source of financing for its ever-growing public debt. As a result, the relationship with China has become just as important to the U.S.

In the 1950s, 1960s and 1970s, U.S.-China trade was almost non-existent. In 1980, trade was fairly low at approximately \$5 billion. However, China's total trade had reached \$41 billion, which was 22 percent of its GDP, \$188 billion. Herefore, U.S.-China \$5 billion represented 12 percent of China's total trade. In 1978, China ranked as the 32nd largest export market and U.S. the 57th largest sources of U.S. imports. In 2008, U.S.-China trade reached more than \$400 billion, making China the second largest U.S. trader, after Canada, the third largest U.S. export market, after Canada and Mexico and the largest source of U.S. imports. U.S. trade with China amounted to approximately 12 percent of its total world trade of \$3.3 trillion in 2008. China's trade with the U.S. amount to 13 percent its total world trade of \$2.5 trillion during the same period. Many highlight the fact that U.S. has a large trade deficit with China, and that American lose jobs to China. Traditional methods of determining economic interdependence take into account the relative equitable bilateral trade between countries. Although trade between these countries is not equitable, the economic relation is balanced insofar as both

⁴¹ Economic Statistics, Nation Masters, http://www.nationmaster.com/graph/eco tra of gdp-economy-trade-of-gdp.

⁴² Morrison, "China-U.S. Trade Issues," 1.

⁴³ U.S.-China Business Council, http://www.uschina.org/statistics/tradetable.html.

countries are dependent on each other and are vulnerable to disruption on either side. Raising trade barriers against China would significantly affect China's export-dependent market; while significantly raising the cost of Chinese merchandise in American department stores. Additionally, if Beijing decides to stop its accumulation of U.S. debt it would result high inflation and increased interest rates. Additionally, many fail to recognize that U.S. is predominantly a service economy, such as "travel and tourism, banking, insurance, entertainment, law, software, and telecommunications."44 U.S. private service sector "accounts for more than two-thirds of GDP...four-fifths its workforce...and one-third its exports."45 The U.S. is now China's largest export market and its number one source of cumulative foreign direct investment (FDI) since 2003.⁴⁶ In recent years, Chinese imports to the U.S. have stimulated one of the strongest global economic engines: American consumerism. China is also an important source of FDI for the U.S. "In the past decade, [U.S.] exports to China have increased six times faster than ... exports to the rest of the world. A recent study by the U.S. Business Council found that over 90 percent of U.S. congressional districts had triple-digit export growth to China in the past eight years."⁴⁷ In addition, the U.S. has depended heavily on Chinese investment in U.S. treasury bonds to finance its perennial deficit spending. China holds over \$800.5 billion in U.S. treasury bonds, which is approximately 24 percent of the total foreign-held U.S. security holdings.⁴⁸ This places China at the top of the list of all foreign holders of U.S. treasury bonds. Therefore, a decline in the value of the dollar adversely affects China, a "10 percent decline in the dollar generates a loss of 3 percent of China's gross domestic product."⁴⁹ This means that China is loath to sell the billions

⁴⁴ Craig VanGrasstek, "The Benefits of U.S.-China Trade in Service," 2006, http://www.uscib.org/docs/china_services_study.pdf.

⁴⁵ Ibid.

⁴⁶ Thomas Lum, "China's Trade with U.S. and the rest of the World," *Congressional Research Service* (2007). Since Hong Kong is officially a territory if China, the U.S. has been China's number one source of total FDI from 2003-2008. See Table 3.

⁴⁷ Alan Holmer. Special Envoy for China and the Strategic Economic Dialogue on the U.S.-China Strategic Economic Growth at the Wuhan University, http://www.treas.gov/press/releases/hp992.htm.

⁴⁸ Department of the Treasury/Federal Reserve Board, http://www.treas.gov/tic/mfh.txt.

⁴⁹ Gregory Chin and Eric Helleiner, "China as a Creditor: A Rising Financial Power?" *Journal of International Affairs* 68, no. 1 (2008): 2.

of dollars it holds it has accumulated in reserve because of the trade imbalance between the two countries, for fear of undermining its own economy. Thus, using dollar reserves to finance U.S. government debt serves Chinese, as well as U.S. economic interests. In 2003, Chinese Premier Wen Jiabao described "the win-win and mutually beneficial economic cooperation and trade:"⁵⁰

American companies bring to China their capital, advanced technology and managerial expertise. In return, China's abundant human resources and huge market provide for American companies enormous business opportunities. Furthermore, Chinese enterprises supply U.S. consumers with large quantities of inexpensive and quality consumer goods.⁵¹

This demonstrates the significance of this economic relationship, but it is also important to evaluate their levels of cooperation. The following analysis categorizes cooperation as low, medium or high. A low level of bilateral cooperation is characterized by ceasefire agreements, diplomatic recognition, minor treaties, normalization of relations, and low-level diplomatic talks. A medium level of bilateral cooperation is defined by cooperation in areas like education and cultural exchanges, which represent higher levels of cooperation than diplomatic relations alone. Higher levels of diplomatic talks, such as senior diplomatic visits and more frequent meetings, as well as treaties and agreements concerning more important issues is also indicative of medium level cooperation. In the highest level of cooperation, diplomatic talks are held at the highest levels of diplomatic seniority, such as the President, Vice President, Premier and high level ministers and secretaries, such as those in the area of defense, economic and foreign affairs, and frequencies of meetings are institutionalized conducted. This level exhibits greater contacts in the area of defense and frequency of military-to-military exercises, and cooperation in the area of maintaining mutual security, such as, terrorism and piracy. This level is also characterized by greater cooperation on global issues, such as antiproliferation of WMD, space, nuclear, energy, environmental concerns, which requires both parties to give up a certain degree of autonomy in providing for their own security.

⁵⁰ Wen Jiabao. Speech delivered during a dinner in Washington sponsored by nine American organizations, http://china.org.cn/english/features/82092.htm.

⁵¹ Ibid.

B. U.S. CHINA ECONOMIC RELATIONS, COOPERATION AND REDUCTION IN CONFLICT

U.S.-China relations began as early as 1844, when the Treaty of Wanghia established basic trade regulations, allowed American missionaries certain rights in China, and created rules on expatriation of U.S. Citizens.⁵² The late nineteenth to early twentieth century was a tumultuous period for China, because of a devastating war with Japan. During the second Sino-Japanese War, 1937–1945, the U.S. gave China general "sympathy, moral support and some small loans, but it was the Soviet Union that extended most of the substantial material aid to China during this period."53 By 1940, China's exports to and imports from the U.S. were 28.62 percent and 21.3 percent of its total exports and imports, respectively.⁵⁴ During WWII, U.S. cooperated with China against Japan by providing it approximately \$1.5 billion in credits and aid under the Lend Lease program from 1941–1946.55 "Not only did Washington grant China a \$300 million loan for currency stabilization, but it persuaded London to issue a joint renunciation of all unequal treaties of the past century on January 11, 1943."56 Due to the U.S.' dominant economic position in the wake of WWII, most of China's trade was with the U.S. Imports from the U.S. were 61 percent, 57 percent and 66 percent of the total and exports to the U.S. were 38 percent, 23 percent, and 20 percent of the total in 1946, 1947 and 1948, respectively.⁵⁷ However, the Communist victory and establishment of the People's Republic of China (PRC) in 1949, followed by the Korean War, completely severed U.S.-China economic relations.

The 1950s and 1960s were characterized by a low level of economic interdependence, no significant cooperation, and high levels of tension, including fighting

⁵² Toru Kubo, "China's Economic Development and the International Order in Asia, 1930s–50s," http://eh.net/XIIICongress/cd/papers/8Kubo67.pdf.

⁵³ Immanuel Hsu, *The Rise of Modern Politics of the Asian-Pacific* (London-New York: Routledge, 2004), 600.

⁵⁴ Kubo, "China's Economic Development and the International Order in Asia."

⁵⁵ Hsu, The Rise of Modern Politics of the Asian-Pacific, 601.

⁵⁶ Ibid.

⁵⁷ Ibid., 9–10.

over the Korean peninsula, disputes over Taiwan, tension over U.S. presence in Vietnam and U.S. efforts to isolate China from the rest of the international community. During the 1950s, the Soviet Union replaced the U.S. as the PRC's primary trading partner. "Trade with the Soviet bloc accounted for 65.3 percent of China's total trade ... and U.S.-China trade virtually ceased by 1954." The Korean War (1950–1953) proved to be the beginning of the Cold War in Asia. President Truman imposed an economic embargo, which prevented U.S. trade with China until the early 1970s. In the absence of significant economic interdependence, strategic and ideological differences and the U.S.' refusal to recognize the PRC severely limited cooperation. U.S. backing of Taiwan proved to be a major area of tension for the next five decades. However, evidence below will show that as economic interdependence grew, the U.S. and China dealt with all these perennial challenges, especially this in the case of Taiwan, in an increasingly cooperative manner, carefully and effectively avoiding disruption in their economic relations.

The 1970s saw the beginning of economic relations and the very beginnings of a process of building mutual trust, but not yet significant cooperation. In 1971, U.S. and China began indirect diplomatic contacts leading to Secretary of State Henry Kissinger's visit to China in July 1971 and President Richard Nixon's visit in June 1972. Discussions between Chairman Mao Tse Tung and President Nixon held during these visits resulted in the formal opening of trade between China and the U.S. trade grew from approximately \$90 million in 1972 to \$2.45 billion in 1979. China registered GDPs of \$112 billion and \$115 billion in 1972 and 1979, respectively. The U.S.' GDP during the same periods were \$1.2 trillion and 2.45 trillion. The trade to GDP ratios is relatively insignificant give such low number of trade volume. Such drastic change in the foreign policies of both countries required the highest state-level meeting to take place before as the catalyst to future economic relations and cooperation. However, political and ideological differences made this period difficult to work through, as did "uncertainty regarding Mao's death and pressure from the Gang of Four—whose members opposed

⁵⁸ William Long, *Economic Incentive and Bilateral Cooperation* (Michigan: University of Michigan Press, 1996), 50.

reliance on foreign technology caused a period of slow down in trade."⁵⁹ Similarly, President Nixon was distracted by the Water Gate scandal, which led to his resignation in 1974. Additionally, he faced senate opposition against normalization with China. Although President Ford pledged to normalize relations with Beijing, he too met challenges from the U.S. senate. In 2007, former President Carter said, "You have to understand that Communism in those days was the same epithet as Terrorism is today."⁶⁰ Ideological differences at this time trumped cooperation because the level of economic interdependence remained low. As the positive impact of the opening of bilateral economic relations made them increasingly felt in subsequent decades, ideological difference would become less of an obstacle to improving U.S.-China relations.

Deng Xiaoping regained preeminence in 1978, after a short period of absence because he had been purged for disagreeing with Mao. He returned with ambitions to open China's market to foreign trade and investment in order to bring about more growth and development. Although the level of economic interdependence was still relatively low, basic cooperation began. In December 1978, the U.S. established official relations with the PRC, recognizing it as the official government of China, acknowledged that Taiwan was part of China, and disestablished official relations with the government of Taiwan. Washington also granted Beijing the status of Most Favorite Nation (MFN), which "treated Chinese imports like those of GATT members for tariff purpose." The MFN agreement led to acceleration in U.S.-China trade—from \$2.45 billion in 1979 to \$6.85 billion in 1981." This was still a small percentage of U.S. total trade, which reached just over \$400 billion in 1981. U.S.' GDP in 1981 was \$3.11 trillion, so trade with China had not made significant impact to its economy just yet. On the other hand,

⁵⁹ Library of Congress Country Studies, http://lcweb2.loc.gov/frd/cs/cshome.html.

⁶⁰ Daniel Schearf, "China Spoke about key of U.S.-China Relations," *VOA NEWS*, http://www.turkishweekly.net/news/50873/carter-spoke-about-key-to-china-us-relations.html.

⁶¹ Long, Economic Incentive and Bilateral Cooperation, 53.

⁶² Ibid.

China's GDP was just under \$200 billion the same year, but China' total trade was approximately 25 percent of its GDP during the same year. The U.S.-China trade made up over 3 percent its GDP.⁶³

Michael Mastanduno argues, "[a]s one state gradually expands economic interaction with its target, the resulting interdependence creates vested interests within the target society and government. The beneficiaries of interdependence become addicted to it, and they protect their interests by pressuring the government to accommodate the source of interdependence."64 In the U.S.-China case, this dynamic was first reflected in initiatives by both Presidents Richard Nixon and Jimmy Carter that sought to gain greater cooperation as economic interdependence with China increased. In his resignation speech in 1974, President Nixon said, "we must now ensure that the one quarter of the world's people who live in the People's Republic of China will be and remain not our enemies but our friends."65 Bilateral economic relationship was becoming critical to both countries. Carter said that he established relations with China because he foresaw China's developmental potential.⁶⁶ Tapping into such a large and populated country like China would create an enormous market for the U.S. Moreover, the U.S. would be able to tap into China's cheap labor. This new relationship would open doors to cooperation in other venues, which was critical in the changing international environment. This helped ease domestic opposition that insisted that trade relations with China would cause a moral hazard because it would incentivize lack of domestic reform and help modernize a potential future enemy. Nonetheless, economic relations that were developed in the future proved that bilateral trade relations not only resulted in mutual economic benefits but increased bilateral cooperation.

⁶³ World Bank, World Development Indicator, http://datafinder.worldbank.org/about-world-development-indicators?cid=GPD WDI.

⁶⁴ Michael Mastanduno, "The Strategy of Economic Engagement: Theory and Practice," in *Economic Interdependence and International Conflict*, ed. Edward D. Mansfield and Brian M. Pollins (Ann Arbor: University of Michigan Press, 2003), 182–183.

⁶⁵ PBS Presidential Links, http://www.pbs.org/newshour/character/links/nixon_speech.html.

⁶⁶ Quoted in Schearf, "China Spoke about key of U.S.-China Relations."

The 1980s represented a marked increase in economic interdependence and cooperation. This period was characterized by improved economic trade, investment and joint ventures, more and broader cooperation, and a very low level of tension. Bilateral trade grew from approximately \$4.7 billion in 1980 to almost \$18 billion in 1989.⁶⁷ This was significantly important to China growth because \$4.7 billion equated to 10 percent of its total trade with the world; China's total trade, \$41 billion, was 22 percent of its \$180 billion GDP.⁶⁸ The importance of U.S.-China trade was even more important in 1989 when \$18 billion equated to 15 percent of its total trade, \$116 billion, which was then 34 percent of China's \$345 billion GDP.⁶⁹ U.S.-China trade was important to the U.S. during this period, but much less than China, given that U.S.' total trade only made up approximately 20 percent of its massive GDP, \$2.7 trillion and \$5.4 trillion in 1980 and 1989 respectively.⁷⁰ However, U.S. benefited much more from the cheap Chinese products, which allowed the U.S. to invest in other areas.

Liberalization of the Chinese economy also drew U.S. FDI into China for the first time (see the chart in the Appendix).⁷¹ Technology exchange increased, along with U.S.-China joint ventures, culminating in a "new [U.S.] policy in 1983 of treating China like other Western nations [sic] for most high technology exports... license application more than doubled between 1983 and 1985 from 4,300 to 10,200, and the value of licensed exports grew tenfold from \$374 million in 1980 to \$3,366 billion in 1986."⁷² In the late 1980s, China had moved up to the sixteenth largest trading partner of the U.S., while the U.S. was already China's third largest. More than 140 American firms had investments in China.⁷³ This increased interdependence led to a stronger overall relationship and more cooperation. First, diplomatic visits became more frequent. President Reagan visited

⁶⁷ See the Appendix.

⁶⁸ Economic Statistics, Nation Masters.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Kevin Honglin Zangh, "Why is U.S. Direct Investment in China so Small?" *Contemporary Economic Policy* (2000): 82–94.

⁷² Long, *Economic Incentive and Bilateral Cooperation*, 54–55.

⁷³ U.S. Library of Congress, http://countrystudies.us/china/129.htm.

China in 1984, President Li Xiannan visited the U.S. the next year, and in February 1989, President George H. W. Bush visited China. Security cooperation increased, particularly vis-à-vis the Soviet Union as the U.S. and China became strategic partners against the Soviet threat. A strengthening China was viewed as less threatening than a strong Soviet Union. "The Reagan administration, after a two-year hiatus, further expanded security cooperation with Beijing to reinforce and strengthen the strategic alignment of the U.S. and China against the Soviet Union."⁷⁴ This increased security cooperation consisted of arms sales, intelligence sharing, and arms sales. Increased cooperation led to some compromise on the issue of Taiwan on both sides. The U.S. and China signed a third communiqué stating that the U.S. would gradually reduce the levels of arms sales to Taiwan and China promised to strive toward a peaceful resolution to the Taiwan case.⁷⁵

The U.S. and China also began to express shared concerns regarding North Korea, even though China had been a staunch ally of North Korea for many years. Although, from the Chinese perspective an alliance with the Democratic People's Republic of Korean (DPRK) served its interest, Pyongyang's overtures to the Soviet Union in the 1980s were not particularly welcome to Beijing. The DPRK viewed China's rapprochement with the U.S. and improving relations with South Korea and Japan, as a threat. Therefore, it sought closer relations with the Soviet Union. Rivalry between North and South Korea could destabilize the peninsula, which was not in the interest of China.

During the 1980s, the U.S. no longer viewed China as a major threat. China viewed the Soviet Union as a greater threat than the U.S. The growth in economic interdependence increased their confidence, allowing for further cooperation in military sector. U.S.-China cooperation also increased in jet fighter testing and design improvements, while the U.S. provided technology and financing for more than twelve Chinese satellite launches, which improved its space capabilities.⁷⁶ Multiple high-level

⁷⁴ Thomas Wilborn, "Security Cooperation with China: Analysis and a Proposal," (1994), http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB99.pdf.

⁷⁵ U.S. Department of State, Bureau of East Asia and Pacific Affairs, http://www.state.gov/r/pa/ei/bgn/18902.htm.

⁷⁶ Hui Wang, "U.S.-China Bonds and Tensions," www.rand.org/pubs/monograph_reports/MR1300/MR1300.ch12.pdf.

defense and military-to-military exchange activities also took place in the 1980s. "[I]n 1986, U.S. Navy ships made their first Chinese port call since 1949."⁷⁷ Following these visits, sales of American military gear and equipment were made to assist China's military modernization. Although the sales were limited to non-weapons related equipment, this showed great progress in their relations, since sales of this military technology allowed China to close most of the gap in capabilities that had been created by earlier U.S. prohibitions. The U.S. and China also made great inroads towards nuclear cooperation during this period. In 1983, they signed a Nuclear Cooperation agreement, and in 1984, China joined the International Atomic Energy Agency and established nuclear material control measures. In 1988, China began to submit annual UN declaration data of the confidence-building measures for the Biological Weapons Convention. The confidence-building measures for the Biological Weapons Convention.

U.S.-China cooperation also extended to exchanges that allowed citizens of both countries the opportunity to learn about each other's cultures for the first time in the 1980s. In addition to high-level diplomatic visits, many professionals at different levels were able to travel to opposite countries in order to exchange perceptions and ideas. In addition, thousands of Chinese students sent to pursue their education in the U.S., which was previously not allowed.

Cooperation became evident even in areas of significant previous tension, such as human rights. China became a member of the International Human Rights Convention in 1982, and subsequently, ratified several human right conventions. However, setbacks in this area occurred because of China's excessive force used on Chinese students protesting in Tiananmen Square. The U.S. imposed the following sanctions: a suspension of Overseas Private Investment, U.S. Trade and Development, export licensing for defense, Agency (USTDA) financing, for satellites contracted to be launched in China, crime

⁷⁷ The Nixon Center, http://www.nixoncenter.org/Program%20Briefs/vol7no22Solomon(China).htm.

⁷⁸ Stephen J. Flannagan, Ellen L. Frost, and Richard L. Kugler, *Challenges of the Global Century: Report of the Project on Globalization and National Security* (National Delaware University, Washington, D.C., 2001), 98.

⁷⁹ Banning Garrett, and Jonathan Adams, "U.S.-China Cooperation on the Problem of Failing States and Transnational Threats," *Special Report* 126, U.S. Institute of Peace (September 2004), www.usip.org.

control and detection instruments and equipment; denial of technology related to nuclear production and articles and defense services on the U.S. munitions list. 80 Nonetheless, economic relations continued despite a period of sanctions. Although the U.S. continued to express verbal discontent with regard to violations of human rights in the 1980s, it also worked to managed tension of this period effectively and pursued cooperation in other areas. Furthermore, the sanctions that were imposed did not have much effect on the relationship because most of the sanctions were a continuation of previous ones. Moreover, over the years the Administration has relieved most of the effects of the sanction all together.

Sanctions were designed to satisfy U.S. domestic pressure, without hindering the U.S.-China relationship. Although human right issues are still brought up on occasion, less pressure is placed on China over these matters, because Washington does not want to risk hindering the economic relationship with Beijing. "The power of Congress, once significant because so much hung on the annual possibility that favorable trade could be suspended, has been diffused. The sanctions that remain in place today can all be modified, eased, or lifted altogether by the President, without congressional input...Congress and the Administration each recognize the importance of China's emerging ability to consume and to produce, and China has become an increasingly important trading partner of the U.S."81

The Tiananmen Square massacre caused considerable tensions in U.S.-China relations. As a promoter of human rights throughout the world, the U.S. was forced to take *some* measures to punish Beijing for its actions. There was a debate in the U.S. on what those measures should involve. President Bush wrestled with striking a balance between appearing Congress, which pressured the Administration to refuse MFN status to China and those that lobbied for protecting economic relations, such as the business sector. President Bush knew that by:

⁸⁰ Dianne Rennack, "China: Economic Sanctions," *Congressional Research Service* (2006), http://www.fas.org/sgp/crs/row/RL31910.pdf.

⁸¹ Ibid.

Raising tariff levels on Chinese goods entering the American market by an average of 40 percent, the repeal of MFN status would strike at the heart of the rapidly growing commercial relations between the two countries. Congress was not oblivious or naïve to think that cutting ties with China would have no economic consequences, but they had to deal with the pressure from their constituents who abhorred China's reaction to the protestors in Tiananmen Square. The public was well aware of the Tiananmen incident due to the extensive attention given to it by the American media coverage. It would also seem likely that the climate created by such a step would have precluded genuine cooperation over the range of political and security issues that concerned both the U.S. and China. 82

Therefore, President Bush bought off on imposing sanctions, but the sanctions were specific enough so that the Chinese government would understand that the U.S. was obliged to take action due to domestic pressures. Nonetheless, China knew that these sanction had no real negative consequences, making it clear to both parties that cooperation would continue, and it did. In fact, U.S.-China economic relations and overall cooperation improved significantly during this subsequent period. Although there was significant domestic debate over how to approach China policy after Tiananmen, President Bush was reluctant to make decisions that would significantly harm U.S.-China relations. He viewed China as strategically important and believed that "growing economic interaction between the two countries was important for the development of a more open and democratic system in China."83 He opened the lines of communications with the Chinese Embassy and attempted to call the Chinese president on several occasions. He also immediately dispatched diplomatic delegations on several occasions to help manage this crisis, to include National Security Advisor, Brent Scowcroft, Deputy Secretary of State Lawrence Eagleburger, and former Secretary of State Henry Kissinger and President Nixon.⁸⁴ The message sent to the Chinese leadership was essentially that the bilateral relationship had been valuable to both, but that he shared the American

⁸² David Skidmore and William Gates, "After Tiananmen: The Struggle over U.S. Policy toward China in the Bush Administration," *Presidential Studies Quarterly* 27, no. 3 (1997).

⁸³ Robert Suettinger, *Beyond Tiananmen: The Politics of U.S.-China Relations, 1989–2000* (Virginia: The Brooking Institute, 2003), 63.

⁸⁴ Ibid., 80.

public's dismay for what had occurred in Tiananmen Square. In order to move forward, President Bush urged the Chinese to show signs of good gesture, which Deng did. While Bush waived congressionally imposed limitations on Export-Import Bank lending for China, Beijing released 573 Tiananmen incident detainees and lifted martial law. 85 Additionally, Bush engaged domestic opposition to work on a compromise resolution on U.S. China policy.

C. 1990–2000

During this period, the U.S. continued to be one of China's most important foreign investors. "From 1994 to 2001, the direct investment position, or cumulative investments, of U.S. MNC [Multinational Corporations] more than quadrupled, from \$2.6 billion to \$10.5 billion. By 2005, U.S. become the second largest cumulative investor in China after Hong Kong," 6 registering \$3.1 billion in utilized investment in China. U.S.' FDI stock in China was \$28.3 billion in 2007, a 21 percent jump from the previous year, while China's FDI stock in the U.S. was \$1.1 billion, a 12.1 percent increase from 2006. FDI flow to China has actually decreased from approximately 10 percent to 3 percent of total utilized FDI in China. FDI inflow originating from China was \$363 million, which was relatively low compared with Europe; 70 percent of all FDI inflow to the U.S. originates now from Europe. Additionally, U.S. R&D also increased during the same period, making China the 11th largest recipient of U.S. R&D in 2000, up from a ranking of 30th in 1994. Furthermore, overall trade during the 1990s continued to grow at a rapid rate, despite several tense incidents throughout the period. U.S.-China trade rose from just over \$20 billion in 1990 to over \$116 billion just before the turn of the

⁸⁵ Suettinger, "Beyond Tiananmen: The Politics of U.S.-China Relations, 1989–2000," 100–101.

⁸⁶ Francisco Morris, "U.S.-China R&D Linkages: Direct Investment and Industrial Alliances in the 1990s," *Info Brief* (February 2004), http://www.nsf.gov/statistics/infbrief/nsf04306/.

⁸⁷ Thomas Lum, "China's Trade with U.S. and the rest of the World," *CRS Report for Congress* (2007).

⁸⁸ Organization for International Investment, "Foreign Direct Investment in the U.S.," (March 2009), http://www.ofii.org/docs/FDI_2009.pdf.

⁸⁹ Ibid.

century.⁹⁰ U.S.' total trade in 1990 was approximately \$900 billion, and trade made up 20.5 percent of its GDP, making U.S.-China trade more than 2 percent of its total trade. China's total trade during the same years was 35 percent of its GDP.⁹¹ In 2000, U.S. total trade reached almost \$2 trillion or 26 percent of its GDP, \$9.7 trillion. U.S.-China trade made up almost 6 percent of its total trade. China's trade to GDP ratio was almost 70 percent, or \$840 billion of \$1.2 trillion, making U.S.-China approximately 14 percent of China's total trade.⁹²

Diplomatic contacts increased during this period. In 1992, President Bush met with Premier Li Peng during the Premier's U.N. visit. In 1993, Chinese president Jiang Zemin held talks with President Clinton while visiting for the Asia-Pacific Economic Cooperation summit in Seattle. In 1997, Chinese President Jiang Zemin made an official visit to Washington where he and President Clinton issued a "joint communiqué calling for strengthening cooperation toward a constructive strategic partnership in the 21st century." In 1998, President Clinton flew to Beijing to discuss their bilateral relations, major regional and international issues. The following year Chinese Premier, Zhu Rongji visited President Clinton in the U.S. In October 2001, President Bush visited China. This was followed by another visit of made by President Bush in February 2002, and reciprocated by President Zemin's to Crawford, Texas in October 2002. In 2003, President Bush and President Hu Jingtao met in Evian and Bangkok, and Bush hosted Premier Wen Jiabao. In 2005, the U.S. president met with his Chinese counterpart and the Premier. The same year the U.S.-China Senior Dialogue was established, meeting first in Beijing on November and in Washington the following month. These high-level official meetings continued in 2006 where the U.S. and China agreed to improve their trade relations. In 2007, Secretary of Defense Gates visited China. In 2008, President Bush made his fourth visit to China to attend the Olympic ceremonies. Furthermore, thus far, President Obama visited Beijing in November 22, 2009, where he covered many topics,

⁹⁰ See the Appendix.

⁹¹ Economic Statistics, Nation Masters.

⁹² Ibid.

among them the economy, North Korea, Afghanistan, as well as energy and climate policy. During this visit, President Hu Jingtao pledged to visit the U.S. some time in 2010.

Tensions surrounding Taiwan and trade imbalance mounted in the early part of this period. The U.S. Congress began to call for greater pressure on China for a perceived failure to address these issues constructively. Tensions spiked in 1995–1996, when China conducted a series of missile exercises off the coast of Taiwan and the U.S. ordered two aircraft carriers into the area in response. Again, in 1999, North Atlantic Treaty Organization (NATO) peacekeepers accidently bombed the Chinese embassy in Belgrade. 93 These events led some to believe that a breakdown of the U.S.-China relationship was imminent. However, the demands of economic interdependence led both governments to take a number of unprecedented steps to avoid conflict and deescalate tensions during these incidents. Even though U.S. House voted to disapprove China's MFN status in 1990, President Bush vetoed the bill in recognition of the importance of maintaining U.S.-China economic relations. Bush also noted that China was cooperating on issues important to the U.S. Bush met with the Chinese Foreign Minister to express his gratitude for China not voting against America's efforts to expel Saddam Hussein forces from Kuwait in 1990 and 1991. In the Taiwan crisis, China was transparent in communicating its intension to conduct military exercises in the straits. Beijing maintained communications with both Washington and Taipei throughout. During the crisis, U.S. National Security and State Department officials met Taiwan's National Security Council secretary-general in New York, pointing out that while American support for Taiwan was dependable, the U.S.-PRC relationship was also important and needed to be managed carefully and that Taiwan's security was better served by stable U.S.-China relations than by instability and high tensions.⁹⁴ All of this was also backed up be the military deterrence of two aircraft carriers in the area. In the Belgrade incident, the U.S. made serious efforts to reduce tensions and safeguard the relationship with

⁹³ Shirley Kan, "China-U.S. Aircraft Collision Incident of April 2001: Assessments and Policy Implications," *Congressional Research Service* (2001): 21, http://www.fas.org/sgp/crs/row/RL30946.pdf.

⁹⁴ Wu Xinbo, "Managing Crisis and Sustaining Peace between China and the U.S.," *U.S. Institute of Peace* (2008), http://www.usip.org/files/resources/PW61 FinalApr16.pdf.

China. President Clinton maintained communications with President Jang Zemin. He also sent a delegation of U.S. diplomats to Beijing in order to cooperate with Chinese leaders. Furthermore, President Clinton made several official remarks expressing his condolences for the victims of the attacks. Moreover, he assured Beijing that it would provide it with all findings from U.S. and NATO's investigation. At the same time, cooperation expanded on other issues. In 1997, "China agreed to stop selling anti-ship missiles to Iran ... and terminate China-Iran nuclear cooperation." This is solid evidence that U.S.-China cooperation continued to grow.

By 1998, the U.S.-China economic relationship had become so important that the Clinton Administration explicitly adopted a more constructive economic and defense engagement policy.

The vague term 'engagement' came to mean in practice a focus on establishing regular meeting by the top leaders and their respective ministers and on developing an interdependent relationship with China that would encourage not only a wide range of economic exchanges, but also exchanges in the military sphere and other dimension of government, as well as in areas of beyond government, such as social, cultural, and educational interchanges...'engaging' China would lead in the long run to changes in that country that would make it more market oriented and more liberal politically.⁹⁷

The new engagement policy helped establish greater cooperation in various fields other than economics. Commercial and security concerns were at the forefront of the policy, which contributed greatly to helping achieve progress in these areas. The U.S. and China were now moving from cooperation at a moderate level towards cooperation at a higher level in other areas, such as energy, environment and climate change, science and technology, and education.

U.S.-China trade rose from approximately \$116 billion in 2000 to more than \$400 billion in 2008.⁹⁸ China's trade with the world amounted to approximately \$510 billion

⁹⁵ Xinbo, "Managing Crisis and Sustaining Peace between China and the U.S.," 10–14.

⁹⁶ Susan Shirk, *China: Fragile Superpower* (New York: Oxford University Press, 2007), 223.

⁹⁷ Yahuda, *The International Politics of the Asia-Pacific*, 256–57.

⁹⁸ See the Appendix.

in 2000 and \$2.5 trillion in 2008. Therefore, U.S.-China trade represented 22.7 percent and 16 percent respectively. Although the raw numbers are in decline, U.S. still ranked as China's number one trading partner in 2008.⁹⁹ While the trade aspect of interdependence decreased, China has increased its financing of the U.S. national debt by increasing its share of U.S. treasury bills from \$118 billion in 2002 to just over \$800 billion in 2008. 100 This represents an increase of foreign-held U.S. securities from 9 percent to 24 percent in 2002 and 2008, respectively. 101 Following its accession to the World Trade Organization in 2001, China's trade barriers against the U.S. decreased significantly, resulting in an increase flood of goods into the American market. In 1990, China was U.S. eighth largest source of import, rising to first in 2007–2008. 102 "By 2005, average tariff rates on key U.S. agricultural exports dropped from 31 percent to 14 percent and on industrial products from 25 percent to 9 percent." ¹⁰³ Therefore, even though U.S. continued to register an overall trade deficit in 2008, U.S. exports to China grew "240 percent from 2001 to 2007, significantly more than exports to any other to ten trade partners." 104 Furthermore, U.S. trade deficit had grown by approximately \$40 billion from 2004–2005 and decrease by \$32, \$24, \$10 billion during the following three years. 105 "By 2008, China became the second largest trade partner, its third largest export market, and its biggest source of imports, approximately 12 percent of total U.S. trade."106

The two countries' reliance on each other's economic stability proved to be a critical incentive and motivator to work to resolve new challenges that arose and increase cooperation in many areas, despite differences in others. Relations became strained again

⁹⁹ U.S.-China Business Council.

¹⁰⁰ Wayne Morrison, "China's Holding of U.S. Securities: Implication for the U.S. Economy," *Report for the Congressional Research Service* (2009): 8.

¹⁰¹ Ibid.

¹⁰² Morrison, "China-U.S. Trade Issues," 6.

¹⁰³ China Country Brief, U.S. State Department Bureau of East Asian and Pacific Affairs, http://www.state.gov/r/pa/ei/bgn/18902.htm.

¹⁰⁴ Antony J. Blinken, "U.S.-China Relations in the Era of Globalization," Senate Hearing on Foreign Relations, May 2008, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110 senate hearings&docid=f:48013.wais.

¹⁰⁵ See the Appendix.

¹⁰⁶ Morrison, "China-U.S. Trade Issues."

in 2001, when an American EP-3 reconnaissance aircraft landed in the Chinese Island of Hainan, after the EP-3 was hit and damaged by a Chinese fighter aircraft, which resulted in the Chinese pilot's death. The American aircrew was detained for 11 days. However, once again Washington and Beijing negotiated a peaceful resolution of the crisis. Instead of apologizing for the incident, which would have been admission of spying on China, Washington expressed contrition for entering Chinese airspace without clearance and for the loss of the pilot's life. ¹⁰⁷ This incident was managed much better than the Taiwan and Belgrade incidents of the 1990s, in that the U.S. responded much quickly and direct, without an overwhelming military presence like that of the Taiwan Strait crisis, which only served to make matters worse.

The terrorist attacks on the U.S. on September 11, 2001, created a new opportunity for cooperation. Although, China initially expressed some concern over the U.S. invasion of Afghanistan, it quickly got on board, providing \$300 million in support of Afghanistan's reconstruction and joining the Joint Coordination and Monitoring Board, which oversees reconstruction. China also supported the more controversial U.S. mission in Iraq by backing the United Nations Resolution 1637, providing financial supported, and negotiating debt relief for Iraqi debt, to assist U.S. efforts to bring revitalize the Iraqi economy. The Obama administration has been giving this area much more attention during its dialogue with China, resulting in better understanding of common interests in cooperation on Afghanistan. China is now China pledging an additional \$75 million in aid for Afghanistan in the next five years, and began to work directly with the new Iraqi government. 108 China also supported U.S. law enforcement initiatives. It allowed the FBI to establish a Legal Attaché Office at the U.S. Embassy in Beijing and established a Financial Counterterrorism Working Group to share intelligence more broadly. It also reached agreements regarding port security under the U.S. Container Security Initiative. Cooperation in this area was a tremendous success, leading to U.S. installation of nuclear and radioactive material detection equipment in

¹⁰⁷ Xinbo, "Managing Crisis and Sustaining Peace between China and the U.S.," 15–21.

¹⁰⁸ Afghan News Center, http://www.afghanistannewscenter.com/news/2009/april/apr12009.html#14.

multiple Chinese mega ports.¹⁰⁹ Furthermore, the U.S. waived sanction of exports to China related to security equipment.

Broader military-to-military contacts also grew. In 2002, the Chinese military started sending "observers to the large regional exercise called Cobra Gold hosted by Thailand and organized by the U.S." ¹¹⁰

China's military cooperation has gone much farther than anyone would have anticipated. In 2006, China actually joined in a joint exercise organized by the U.S. in the Sea of Japan with Japan and four other countries aimed at preventing the spread of nuclear weapons. After many years of discussion, the PLA and the Pentagon announced plans for a joint maritime rescue exercise. By participating in U.S.-led joint exercise China sends a signal that it wants to be on the same team with its Asian neighbors and the U.S., even militarily. 111

Joint efforts to reduce the threat posed by North Korea's nuclear weapons program were also stepped up in 2003, most prominently within the framework of the Six Party Talks, which was established to open up a dialogue between six nations, U.S., China, North Korea, South Korea, Japan, and Russia win the goal of finding a peaceful resolution of North Korea Nuclear tests. The U.S. has expressed gratitude for China's leadership in the Six Party Talks after it increased pressure on North Korea to reach an agreement. In remarks in front of the U.S.-China Security Review Commission, Thomas Christensen, deputy Assistant Secretary of State for East Asia and Pacific Affairs, stated that China has taken "unprecedented action to express concerns to North Korea over its provocative missile launches, including working with the U.S. and others to pass the very strongly worded UN Security Council resolution 1695, condemning North Korea for its provocative behavior and calling on members nations to take concrete actions to curb international assistance to North Korea's nuclear and missile program." 112

¹⁰⁹ Shirley Kan, "U.S.-China Counterterrorism Cooperation," *Congressional Research Service* (2004), http://www.law.umaryland.edu/marshall/crsreports/crsdocuments/RL33001_10102007.pdf.

¹¹⁰ Shirk, China: Fragile Superpower, 122.

¹¹¹ Ibid.

¹¹² Thomas J. Christensen, "China's Role in the World: Is China a Responsible Stakeholder?," Remarks before the U.S.-China Economic and Security Review Commission, 2006, http://hongkong.usconsulate.gov/uscn_state_2006080301.html.

China has joined the U.S. in opposing Iran's nuclear ambitions, despite its relatively close relationship with Iran, by voting "in favor of UN Security Council Resolutions 1737, 1747, and 1803, applying sanction on Iranian individuals and companies associated with its nuclear weapons and ballistic missile programs." China pressured the Burmese junta to allow international humanitarian relief groups to enter the country after cyclone Nargis. Finally, it has begun to pressure the government of Sudan, another ally and a country in which it has significant oil interests, on Darfur, while playing an important peacekeeping role for the first time. Although both the U.S. and China have their own interests in supporting non-proliferation, this demonstrates a shift in China's willingness to work with the U.S. in this area, whereas in the past it showed greater reluctance to do so.

In 2004, the U.S.-China Science and Technology Agreement was adopted to increase cooperation on renewable energy, and a Memorandums of Understanding was signed on U.S.-China Energy Policy. This policy will focus on fostering greater dialogue concerning energy challenges of the world in order to work together to manage resource availability and stability in the energy markets. The following is a list of areas in which U.S. and China have been cooperating in the area of energy both bilaterally and multilaterally.¹¹⁴

- Memorandum of Understanding on Bilateral Energy Consultation between the State Development Planning Commission (SDPC) and Department of Energy (DOE)
- Energy and Environment Cooperation Initiative between the Chinese Government and the U.S. Government
- Agreement of Intent on Cooperation Concerning Peaceful Uses of Nuclear Technology between SDPC and Department of Energy
- Statement of Intent on Cleaner Air and Cleaner Energy Technology Cooperation between SDPC and the U.S. Environmental Protection Agency
- Statement of Intent on a Cooperative Study of Natural Gas Utilization in China between SDPC and the U.S. EPA

¹¹³ Blinken, "U.S.-China Relations in the Era of Globalization."

¹¹⁴ Ma Aimin, China's Energy Policy and China-U.S. Cooperation, http://www.ncar.org/conferences/60/presentations/Ma.pdf.

- Memorandum of Understanding on Bilateral Energy Policy Dialogue between National Development and Reform Commission (NDRC) and USDOE
- Cooperation Protocol for Clean Energy Tech for 2008 Beijing Olympics
- China and U.S. also cooperate under multilateral frameworks
- APEC energy working group
- International Energy Forum (IEF)
- Asia Pacific Partnership on clean Development and Climate (APP)
- Global Nuclear Energy Partnership (GNEP)
- Carbon sequestration Leadership Forum (CSLF)
- International Partnership for the hydrogen economy (IPHE)

The U.S. moved from a strong bilateral engagement process of meeting through the Joint Commission on Commerce and Trade and Joint Economic Commission to a Strategic Economic Dialogue and Senior Dialogue under the Bush administration in an effort to continue to broaden the areas these partners will try to tackle. These meetings have increasingly focused on strategic areas of concern, such as "non proliferation issues, counterterrorism cooperation, law enforcement cooperation, global issues from environment to health, and science and technology."¹¹⁵

In the face of the global economic crises, the Obama Administration seems to be moving toward an even stronger bond in the U.S.-China relations. The Administration has continued the previous dialogues, but renamed them the Strategic and Economic Dialogues, in recognition of the intent to take on even greater global issues. The new talks are composed of even more senior members of the cabinet. The Secretary of State co-chaired the latest rounds with Secretary of Treasury Timothy Geithner, discussing issues ranging from the North Korean missile threat to clean fuel technology. Both leaders, President Obama and Hu Jintao, were very optimistic about the new era of cooperation, calling it "positive, cooperative and comprehensive." They also reached an "extensive consensus" in dealing with the current global economic crises, as they both realized that they have a great stake in the global market and can only resolve these

¹¹⁵ Christensen, "China's Role in the World."

challenging problems through mutual cooperation. During President Obama's first visit to Beijing in November 2009, both presidents were able to "cement the centrality of the U.S.-China economic relationship ... in many respects the relationship has been mutually beneficial and may have been the primary reason the financial crisis did not result in worldwide Great Depression." 116

Table 1 summarizes the above analysis. The 1950s and 1960s were characterized by little to no economic interdependence, and no cooperation. The 1970s and 1980s saw the gradual emergence of economic interdependence, and low to medium levels of cooperation, while the last two decades have been characterized by a greater level of economic interdependence and higher level of cooperation. Economic interdependence led to the gradual development of bilateral cooperation in an array of fields and increasingly effectively management of the tensions that have arisen in recent decades. Both countries have benefited greatly from the symbiotic relationship developed over the years, making cooperation largely self-sustaining over time. The U.S.-China relationship will probably continue to face tough challenges. However, historical evidence shows that as long as economic interdependence hold these countries together, cooperation in many areas will be possible. In an era of great global challenges, such as economic crisis, the environment energy resource, terrorism, proliferation of weapons of mass destruction, and others, China and the U.S. continue to work toward consensus and compromise as they tackle greater global challenges.

¹¹⁶ Zachary Karabell, "Can an Eagle Hug a Panda?" *Time*, November 30, 2009.

Table 1. U.S.-China post-1950s Economic Relations, Challenges and Cooperation.

Date	U.S. –China	Challenges	Cooperation
	No	Korean War	
1950s-	Economic	USSR-Alliance	NONE
1960s	Engagement	1 st Taiwan	
		Straits	
		Mao's Death	<u>LOW-MEDIUM</u>
1970s-	Some Economic	U.SSoviet	Culture\educational exchange
1980s	Interdependence	rapprochement	Joint business-ventures
		Tiananmen	Some mil-to-mil contacts
			Soviet Union, N. Korea, Afghanistan
		2 nd Taiwan	MEDIUM-HIGH
1990s-		Strait	Energy /climate, Space, Nuclear,
2000s	Economic	Embassy	GWOT, Pirates, Mil-to-mil contacts,
	Interdependence	Bombing	Anti-proliferation of WMD, Six Party
		EP-3 Incident	Talks, N. Korea, Sudan
		Global	
		Economic Crisis	

III. CONCLUSION

This thesis evaluates the probability of the U.S. and China engaging in conflict over energy resources in places like Africa. The evidence does not support realist assertions that economic interdependence and resource competition lead to war. It shows instead an evolution of U.S.-China relations in which economic interdependence has increased the level of cooperation in multiple fields over a period of thirty years.

First, resource wars between U.S. and China are less likely to occur in the current international environment compared to the wars of the twentieth century. Although resources conflict between trading countries played a role during World War I, the level of interdependence was lower than it is for the U.S. and China today. Germany and Japan were more dependent on resources located abroad than in the case of U.S. and China today. Moreover, U.S. and China energy resource investments are much more diversified than that of Japan prior to the World War II. Japan's overwhelming dependence on U.S. energy exports made it difficult to carry out its imperial ambitions once Washington imposed sanctions on energy exports.

During contemporary times, the level of economic interdependence has deepened even among energy dependent countries. Moreover, the forces of globalization have created a web of countries and institutions that are linked together causing them to work closer together to solve their differences before tensions turn into war. This was first made possible by changes in the international environment after WWII and even greater during the post-Cold War era, which allowed economics to play an important role in creating a more peaceful and more cooperative international environment. U.S. and China embraced these new opportunities in order to maximize mutual interests.

Both countries have benefited greatly from the symbiotic relationship they developed over the years. The U.S.' economic relations with China helped it realize a more prosperous environment at home and gain significant international influential and respect. As China grew in global power and influence, so too did its global responsibility, accountability, and interests. The process did not occur without any obstacles; like any

relationship, both grew and learned from each other over time. However, economic interdependence and engagement acted as the strong glue that held the relationship together through the tough times.

Over a period of six decades, the U.S. and China went from being engaged in war with each other, to nations that significantly depend on each other for their economic growth and prosperity. As their economic relationship grew deeper in the 1980s and 1990s, so did their level of cooperation in various areas. Both confronted each other on a series of issues ranging from economics to security in nature, but none was serious enough to break their bond. The evolution their relationship helped develop improved mechanisms to deal with conflict resolution and build trust. This created a strong condition whereby these economic giants were able to cooperate in a greater array of fields in the post-9/11 period.

The U.S.-China relationship will probably continue to face difficult challenges. However, historical evidence suggests that cooperation in many areas will be more possible as long as economic interdependence joins these countries together. In an era of great global challenges, such as economic crisis, climate change, energy competition, terrorism, proliferation of weapons of mass destruction, and others, China and the U.S. will very likely continue to work toward consensus and compromise as they work together to tackle greater global challenges.

A. IMPLICATIONS FOR U.S.-CHINA RESOURCE COMPETITION IN AFRICA

The U.S. and China have made substantial efforts to diversify their energy resources investment. Both are now investing considerably more in the Caspian, Latin American, and African regions. They have also launched new efforts to invest in alternative sources of energy. "By 2013, China and the U.S. renewable energy markets are projected to reach \$43.0 billion and \$13.0 billion, respectively." The Obama

¹¹⁷ Jason Rodriguez, "China and U.S. Renewable Energy Investments Will Play a Key Role in Creating a Global Framework," *Zpryme Consulting and Research Company* (November 17, 2009), http://www.1888pressrelease.com/china-and-united-states-renewable-energy-investments-will-pl-pr-165157.html.

administration has made some progress toward allocating investment funds in several alternative sources of energy. It has also reserved a portion of the stimulus package to creating a safer and more efficient energy grid. Additionally, the government has promoted and incentivized the commercial and individual move towards investing in more efficient means of transportation and appliances.

Despite the fact that many Western scholars and pundits continue to voice concerns about competition for these resources in similar areas, the evidence presented here offers not support for such alarmist and scandalous rhetoric. Most of investment by these countries does not encroach on the others' direct areas of investment. Africa makes up approximately one third of China's oil imports. China's investment is mostly concentrated in Sudan, Algeria, and to a smaller extent Angola, Tunisia, Libya and Gabon. However, Sudan comprises of more than 80 percent of African oil exports to China. However, Sudan comprises of more than 80 percent of U.S. oil imports. Its investment is mostly concentrated in Angola and Algeria. Although the U.S. expects its dependence on African oil to increase to approximately 25 percent by next decade, its investment is much more diversified than China's. Furthermore, the U.S. energy resource interests in African countries mostly lie on off-shore oil platforms, whereas China's energy resource investments are located inland. These factors help refute alarmists' prediction of an impending U.S.-China resource war.

The U.S. and China have reached an epic opportunity in their relationship. Their global leadership and influence and their levels of energy dependence place them in a unique position to solve an important global challenge—energy resource management. Given the cooperative relationship that they have been able to develop over the years, rooted in economic interdependence, and their historical contacts in the field of energy, China and the U.S. can launch a major effort to transform the manner in which energy is used around the globe. The U.S. and China can tap into their strengths and experience in the energy field in order to mitigate future conflict and build a more stable and prosperous future for a major part of the globe.

¹¹⁸ Erika Dowes, "The Fact and Fiction of Sino-African Energy Relations," *China Security* 3, no. 3 (Summer 2007): 42–68.

In the past three decades, the U.S. and China have had some degree of energy cooperation at multiple levels, such as diplomatic, scientific and technical. Initial progress was slow; however, energy cooperation has strengthened over time as they have realized that their economic and industrial growth have made significant impact on global scale. As the world's largest consumers of energy, the U.S. and China have placed a large demand on energy resources, and this demand has had detrimental impact on the environment. Consequently, these challenges could not be solved without the cooperation of the other.

U.S.-China cooperation in the field of energy was relatively negligible in the beginning of their relationship, but they began to cooperate in this area to a greater extent in the early 1980s, before China even became an oil importer. The official engagement began in 1979 when President Carter signed a scientific and technical cooperation agreement. Subsequently, President Ronald Reagan began to treat energy cooperation with China as a higher priority. This was reflected by the signing of the Protocol on Cooperation in the Field of Fossil Energy and Research and Development in 1985. This same year the U.S. and China signed the Peaceful use of Nuclear Technology, which was later ratified in 1998. In 1993, the Lawrence Berkeley National Lab, Advanced International Studies Unit, Pacific Northwest National Laboratory assisted China in establishing the Beijing Energy Efficient Center.

In 1998, President Clinton and Jiang Zemin held an oil and gas forum for the purpose of gaining greater understanding of their energy demands and to ascertain areas of energy policy reform in order to ultimately create a more stable global energy market. ¹²² Later on Washington and Beijing undertook a forum on environment and development headed by Vice President Gore and China's Premeer Zhu Rongji. ¹²³

American Culture Research Center, http://usinfo.org/sino/chronology(3)_e.htm.

¹²⁰ Department of Energy, U.S.-China Energy Cooperation, http://www.energy.gov/news/5080.htm.

¹²¹ Pacific Northwest National Labs, http://www.pnl.gov/news/archives/1993/93-13.htm.

¹²² Zhang Guobao, Speech at the 3rd Forum on Sino-U.S. Oil and Gas Industries, http://www.uschinaogf.org/Forum3/3Zhang Guobao eng.pdf.

 $^{^{123}}$ Working Group on Environment in China-U.S. Relations Meeting Summaries, China Environment Series, no. 3.

Subsequently, the U.S. and China have been meeting in this forum annually. In 2004, U.S. Energy Secretary Abraham Spencer and Zhang Guobao, vice chairman of the National Development and Reform Commission, signed a memorandum of understanding on Sino-U.S. energy policy dialogue, aimed at facilitating greater understanding of each other's challenges and opportunities in the energy sector.¹²⁴

B. RECOMMENDATION

The above history shows that U.S.-China relationship possess the strong elements that bond them together to work more closely to solve many of the global energy challenges that effect both parties. They have essentially already embarked in a trajectory to deal with these problems, but they yet to scratch the surface. A high-level energy regime should be created between U.S. and China to focus on cooperative ways in which both countries can reduce energy dependence, share technology associated with alternative sources of energy, and mitigate factors that can lead to misunderstanding in this area. The Strategic Economic and Senior Dialogue and the Energy Policy Dialogue can act as launching pad for a more focused Energy regime.

- It may incorporate lessons learned from broader discussions held at the Strategic Economic and Senior Dialogue and develop methods to manage security challenges, which fuel tension between these partners, such as Taiwan Straits, Human Rights, and broader economic differences as trade imbalances, currency disparities, and unfair labor practices.
- The U.S.-China energy cooperative regime should first look at specific geographic areas in which they can minimize encroachment on their investments. With regard to Africa, U.S. and China should consider establishing an Africa specific Energy Cooperation Working Group.
- Through increased dialogue, they should work on defining their goals and concerns about energy security, so that each party can gain greater understanding of each other's goals and concerns.
- Both countries should come up with better mechanism to keep their companies accountable in order to mitigate counterproductive paths. Open and frequent dialogue can help establish better business practices, which can reduce some of the obstacles that hinder progress.

¹²⁴ Zhang Guobao, Speech during 6th Forum on Sino-U.S. Oil and Gas Industries, http://www.usea.org/Archive/Speeches%20for%20Website/Guobao%20Remarks%20English.pdf.

- Such a regime may help bring about ideas regarding the domestic policies that must be implemented in each country to have a significant effect on energy security, reduce dependency, stabilizes oil prices, reduce the use of unclean energy and increase the alternative energy resources.
- The U.S. and China should maximize cooperation based on each country's individual strengths in order to push forward more efficient energy and more effective practices within this field. The U.S. can tap into its research capacities and innovative scientists, while China can tap its relatively inexpensive labor pool. Working cooperatively in energy research will benefit both. Overemphasis in protectionism is motivated by fear and mistrust, and hinders progress.

In summary, over the last thirty years the U.S. and China's economic relationship has been the foundation for the development of a significant cooperative relationship, which can be further leveraged in order to tackle their future energy challenges. Cooperation was limited in the beginning, as the level of economic incentive and trust were less significant. However, their economic relationship gradually grew deeper over the years until finally reaching the level of economic interdependence necessary to leap forward onto a more cooperative relation. Now that they both face similar energy challenges, it is incumbent upon China and the U.S. to work to strengthen their relationship and find solutions to this problem by way of forming an energy cooperative regime.

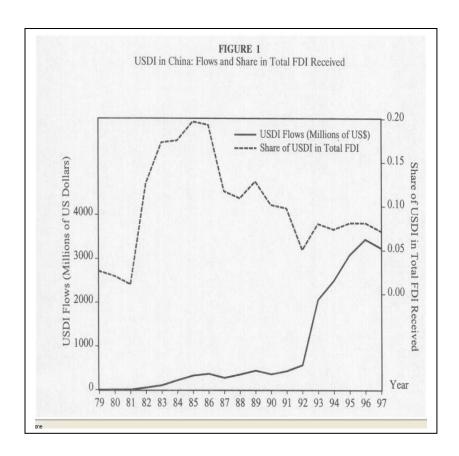
The concerns of many realists with regard to power and self-interest are not entirely off the table insofar as the U.S. and China is concerned; power, misunderstanding and miscommunication has and will probably lead to some disagreements and tenuous circumstances. However, the evidence offered in this thesis helps support the liberal assumption laid out above. The economic relations leads to greater cooperation and understanding, which ultimately helps reduce the factors that lead to conflict. The cooperation in a myriad of fields is grounded in robust economic interdependence. This has opened the doors to tackling global problems, such as energy dependence, environmental side effects caused by inefficient use of energy resources, and the coordination and avoidance of encroachment of each other's access to energy resources around the world.

Managing these challenges can be accomplished best by strengthening their cooperation through a robust energy cooperation regime. Only then can these countries begin to solve their own energy challenges, which also affect the entire globe in terms price instability and pollutions. More importantly, solving these issues through cooperation will help reduce the chances of future conflict.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX. U.S. INVESTMENT IN CHINA

The following chart shows U.S. Direct Investment in China and share in total FDI received.



All figures below are expressed in millions of U.S. dollars for U.S. exports, U.S. imports and the balance per year.

Year	U.S. Exports	U.S. Imports	Balance
2008	69,732.8	337,772.6	-268,039.8
2007	62,936.9	321,442.9	-258,506.0
2006	53,673.0	287,774.4	-234,101.3
2005	41,192.0	243,470.1	-202,278.1
2004	34,427.8	196,682.0	-162,254.3
2003	28,367.9	152,436.1	-124,068.2
2002	22,127.7	125,192.6	-103,064.9
2001	19,182.3	102,278.4	-83,096.1
2000	16,185.2	100,018.2	-83,833.0
1999	13,111.1	81,788.2	-68,677.1
1998	14,241.2	71,168.6	-56,927.4
1997	12,862.2	62,557.7	-49,695.5
1996	11,992.6	51,512.8	-39,520.2
1995	11,753.7	45,543.2	-33,789.5
1994	9,281.7	38,786.8	-29,505.1
1993	8,762.9	31,539.9	-22,777.0
1992	7,418.5	25,727.5	-18,309.0
1991	6,278.2	18,969.2	-12,691.0
1990	4,806.4	15,237.4	-10,431.0
1989	5,755.4	11,989.7	-6,234.3
1988	5,021.6	8,510.9	-3,489.3
1987	3,497.3	6,293.6	-2,796.3
1986	3,106.3	4,771.0	-1,664.7
1985	3,855.7	3,861.7	-6.0
1984	3,004.	3,381	-377

The following table shows the top 10 destination countries for the U.S.' FDI outflows (2003-2008).

	Destination Country	Capital Investment	Percent of Total FDI Outflows
1	China	\$130,021,000,000	13.56 percent
2	India	\$60,045,112,217	6.26 percent
3	UK	\$49,795,898,716	5.19 percent
4	Canada	\$42,032,033,333	4.38 percent
5	Russia	\$40,932,490,000	4.27 percent
6	Germany	\$30,529,716,685	3.18 percent
7	Australia	\$29,731,563,040	3.10 percent
8	Japan	\$28,291,405,541	2.95 percent
9	Mexico	\$25,251,070,000	2.63 percent
10	South Korea	\$23,420,720,151	2.44 percent

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

- Aimin, Ma. China's Energy Policy and China-U.S. Cooperation. http://www.ncar.org (accessed November 23, 2009).
- Arima, Yuichi. "The Way to Pearl Harbor: U.S. VS Japan." *Inventory of Conflict and Environment Case Studies* 118 (December 2003). http://www.american.edu/TED/ice/japan-oil.htm#table (accessed March 21, 2009).
- Afghan News Center.

 http://www.afghanistannewscenter.com/news/2009/april/apr12009.html#14
 (accessed December 12, 2009).
- American Culture Research Center. http://usinfo.org/sino/chronology(3)_e.htm (accessed December 2, 2009).
- Barbieri, Katherine. "Economic Interdependence: A Path to Peace or a Source of Interstate Conflict?" *Journal of Peace Research* 33, no. 1 (1996).
- Bergsten, Fred. A Partnership of Equals, Foreign Affairs 87, no. 4 (2008).
- Blinken, Antony J. U.S.-China Relations in the Era of Globalization." Senate Hearing on Foreign Relations. May 2008. "http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110 senate hearings&docid=f:48013.wais (accessed September 24, 2009).
- Campbell, Colin. "The Coming Global Oil Crises." (1997). http://www.oilcrisis.com/overview.htm (accessed May 23, 2008).
- Chin, Gregory, and Eric Helleiner. "China as a Creditor: A Rising Financial Power?" *Journal of International Affairs* 68, no. 1 (2008): 2.
- China Country Brief. U.S. State Department Bureau of East Asian and Pacific Affairs. http://www.state.gov/r/pa/ei/bgn/18902.htm (accessed August 27, 2009).
- Christensen, Thomas. "China's Role in the World: Is China a responsible Stakeholder?" (2006). http://hongkong.usconsulate.gov/uscn_state_2006080301.html (accessed August 28, 2009).
- Copeland, Dale C. "Economic Interdependence and War: A Theory of Trade Expectation." *International Security* 20, no. 4 (1996). http://www.mtholyoke.edu/acad/intrel/copeland.htm (accessed June 19, 2008).
- Department of Energy. U.S.-China Energy Cooperation. http://www.energy.gov/news/5080.htm (accessed November 21, 2009).

- Department of the Treasury/Federal Reserve Board. http://www.treas.gov/tic/mfh.txt (accessed September 16, 2009).
- Dilip, Das K. *The Economic Dimension of Globalization*. Chapter 2, 31, http://www.eclac.cl/publicaciones/xml/0/10030/Globalization-Chap2.pdf (accessed March 6, 2009).
- Dowes, Erika. "The Fact and Fiction of Sino-African Energy Relations." *China Security* 3, no. 3 (Summer 2007): 42–68.
- Doyle, Michael. Ways of War and Peace: Realism, Liberalism, and Socialism. New York: W.W. Norton & Company, 1997.
- Dorn, James. The Debt Threat: A Risk to U.S.-China Relations? *Brown Journal of World Affairs* 14, no. 2 (2008): 151. http://www.cato.org/pubs/articles/dorn_bjwa_142.pdf (accessed October 2, 2009).
- Economic Statistics, Nation Masters.

 http://www.nationmaster.com/graph/eco_tra_of_gdp-economy-trade-of-gdp, (accessed December 12, 2009).
- Engdahl, William. A Century or War: Anglo-American Oil Politics and the New World Order. Pluto Press, 2004.
- Fisher, Louis. *Oil Imperialism: The International Struggle for Petroleum.* London: George Allen & Uniwin, 1926.
- Fitz-Gerald, Keith. "China's Growing Oil Hunger Could Shake up Oil Prices." (accessed November 15, 2009).
- Flannagan, Stephen J., Ellen L. Frost, and Richard L. Kugler. *Challenges of the Global Century: Report of the Project on Globalization and National Security*. National Delaware University, Washington, D.C., 2001.
- Garrett, Banning, and Jonathan Adams. "U.S.-China Cooperation on the Problem of Failing States and Transnational Threats." *Special Report* 126, U.S. Institute of Peace (September 2004), www.usip.org, (accessed July 28, 2009).
- Ghazvinian, John. *Untapped: The Scramble for Africa's Oil*. Harcourt: Orlando, 2007.
- Grieco, Joseph. *The International Political Economy since World War II*. Duke University, 2000.
- Gregory Chin, and Eric Helleiner. "China as a Creditor: A Rising Financial Power?" *Journal of International Affairs* 68, no. 1, 2 (2008).

- Hearing before the Committee on International Relations House of Representatives. "U.S.—China Ties: Reassessing the Economic Relationship." (October 2003): 108–70. www.house.gov/international_relations (accessed July 28, 2009).
- Holmer, Alan. Special Envoy for China and the Strategic Economic Dialogue on the U.S.-China Strategic Economic Growth at the Wuhan University. http://www.treas.gov/press/releases/hp992.htm (accessed September 2, 2009).
- Hsu, Immanuel. *The Rise of Modern Politics of the Asian-Pacific*. London-New York: Routeledge, 2004.
- Jiabao, Wen. Speech delivered during a dinner in Washington sponsored by nine-American organizations. http://china.org.cn/english/features/82092.htm (accessed September 8, 2009).
- Kan, Shirley. "China-U.S. Aircraft Collision Incident of April 2001: Assessments and Policy Implications." *Congressional Research Service*, 2001. http://www.fas.org/sgp/crs/row/RL30946.pdf (accessed August 25, 2009).
- Karabell, Zachary. "Can an Eagle Hug a Panda?" Time, November 30, 2009.
- Klare, Michael. Blood and Oil: The Dangers and Consequences of America's Growing Dependence on Imported Petroleum. New York: Henry Hold and Company, 2004.
 ——. "Energy, Resource Conflict, and the Emerging World Order." Strategic Insight. Viewpoint: Resource Wars.

 http://www.ccc.nps.navy.mil/si/2008/Feb/klareFeb08.asp (accessed January 12, 2009).
 ——. "For Oil and Empire: Rethinking War with Iraq."

 http://www.currenthistory.com/org_pdf_files/102_662_129.pdf (accessed May 26, 2008).
- _____. Rising Powers, Shrinking Planet: The New Geopolitics of Energy. New York, NY: Metropolitan Books, 2008.

26, 2008).

____. "The Deadly Nexus: Oil Terrorism, and America's National Security." (2002). http://www.currenthistory.com/org_pdf_files/101_659_414.pdf (accessed May

- Kubo, Toru. "China's Economic Development and the International Order in Asia, 1930s–50s International Order of Asia in the 1930s and 1950s." http://eh.net/XIIICongress/cd/papers/8Kubo67.pdf (accessed July 29, 2009).
- Lieberthal, Kenneth. *Governing China: From Revolution through Reform.* New York-London: Norton, 2004.

- Library of Congress Country Studies. http://lcweb2.loc.gov/frd/cs/cshome.html (accessed July 28, 2009).
- Lockwood, William W. "Annals of the American Academy of Political and Social Science." *Our Foreign Commerce in Peace and War* 211 (September 1940): 130–137.
- Long, William. *Economic Incentive and Bilateral Cooperation*. Michigan: University of Michigan Press, 1996.
- Luft, Gus. "Fueling the Dragon: China's Race into the Oil Market." (2007). http://www.iags.org/china.htm (accessed June 19, 2008).
- Lum, Thomas. China's Trade with U.S. and the Rest of the World. *CRS Report for Congress*, 2007.
- Mastanduno, Michael. "The Strategy of Economic Engagement: Theory and Practice." In *Economic Interdependence and International Conflict*, edited by Edward D. Mansfield and Brian M. Pollins. Ann Arbor: University of Michigan Press, 2003.
- Morris, Francisco. "U.S.-China R&D Linkages: Direct Investment and Industrial Alliances in the 1990s." http://www.nsf.gov/statistics/infbrief/nsf04306/ (accessed August 27, 2009).
- Morrison, Wayne. "China's Holding of U.S. Securities: Implication for the U.S. Economy." *Report for the Congressional Research Service* (2009): 8.
- _____. "China-U.S. Trade Issues." *Report for the Congressional Research Service*. (2009). http://www.fas.org/sgp/crs/row/RL33536.pdf (accessed September 23, 2009).
- National Security Strategy of the U.S. of America. March 2006.
- Nincic, Miroslav. "The Logic of Positive Engagement: Dealing with Renegade Regimes." *International Studies Perspectives* 7 (November 2006).
- The Nixon Center. www.nixoncenter.org/ (accessed August 19, 2009).
- Office of the U.S. Trade Representative. http://www.ustr.gov/countries-regions/china (accessed October 2, 2009).
- Organization for International Investment. "Foreign Direct Investment in the U.S." (March 2009). http://www.ofii.org/docs/FDI_2009.pdf (accessed December 12, 2009).
- Pacific Northwest National Labs. http://www.pnl.gov/news/archives/1993/93-13.htm (accessed November 21, 2009).

- Papayoanou, Paul A. "Interdependence, Institutions, and the Balance of Power: Britain, Germany, and World War I." *International Security* 20, no. 4 (1996).
- PBS Presidential Links. http://www.pbs.org/newshour/character/links/nixon_speech.html (accessed August 24, 2009).
- Perry, Alex. "Africa's Oil Dream." *Time Magazine* (May 31, 2007). http://www.time.com/time/magazine/article/0,9171,1626751,00.html, (accessed June 19, 2008).
- Prashad, Vijay. "A New Cold War over Oil, 2007." *Frontline*. http://www.globalpolicy.org/empire/intervention/2007/0812newcw.htm (accessed May 17, 2008).
- Rennack, Dianne. "China: Economic Sanctions." *Congressional Research Service* (2006). http://www.fas.org/sgp/crs/row/RL31910.pdf, (accessed December 5, 2009).
- Renner, Michael. World Watch Organization. May 21, 2008. http://www.worldwatch.org/node/5461 (accessed December 18, 2008).
- Ripsman, Norrin M., and Jean-Marc F. Blanchard. "A Guide to Conducting Case Studies of Economic Interdependence and Conflict."

 http://polisci.osu.edu/faculty/bpollins/book/Ripsman_and_Blanchard.pdf
 (accessed February 15, 2009).
- Rodriguez, Jason. "China and U.S. Renewable Energy Investments Will Play a Key Role in Creating a Global Framework." Zpryme *Consulting and Research Company*. http://www.1888pressrelease.com/china-and-united-states-renewable-energy-investments-will-pl-pr-165157.html (accessed November 20, 2009).
- Rosencrance, Richard. The Rise of the Trading State: Commerce and Conquest in the Modern World. New York: Basic Books, 1986.
- Ross, Michael L. "Blood Barrels." Foreign Affairs 87, no. 3 (2008): 2–9.
- Russett, Bruce, and John O'Neal. Triangulating Peace. W.W. Norton & Co., Ltd., 2001.
- _____. Triangulating Peace: Democracy Independence and International Organizations. New York: W.W. Norton. Solomon Benjamin, 2001.
- Sakaida, Henry. *Imperial Japanese Navy Aces*, 1937–45. Oxford: Osprey Publishing Limited, 1998.
- Schearf, Daniel. "China Spoke about key of U.S.-China Relations." *VOA NEWS*. http://www.turkishweekly.net/news/50873/carter-spoke-about-key-to-china-us-relations.html (accessed November 12, 2009).

- Senate Hearing on Foreign Relations. U.S.-China Relations in the Era of Globalization. 2008. www.gpoaccess.gov/congress/index.html (accessed September 24, 2009).
- Shirk, Susan. China: Fragile Superpower. New York: Oxford University Press, 2007.
- Skidmore, David, and William Gates. After Tiananmen: The Struggle over U.S. Policy toward China in the Bush Administration.

 http://www.drake.edu/artsci/PolSci/personalwebpage/tiananmen.html, (accessed September 25, 2009).
- Smil, Vaclav. *China's Past, China's Future: Energy, Food, Environment.* London: Rutledge Curzon, 2004.
- Smith, J. W. *Economic Democracy: The Political Struggle of the 21st Century*. Chapter 5. 4th ed. The Institute for Economic Democratic Press, 2005. http://www.ied.info/wp-content/uploads/economic-democracy.pdf (accessed April 22, 2009).
- Suettinger, Robert. *Beyond Tiananmen: The Politics of U.S.-China Relations*, 1989–2000. Virginia: The Brooking Institute, 2003.
- Thompson, Christopher. "The Scramble for African Oil." (2007). http://www.newstatesman.com/global-issues/2007/06/africa-oil-pentagon-military (accessed June 19, 2008).
- U. S. Census Bureau, Foreign Trade Statistics. http://www.census.gov/foreign-trade/statistics/highlights/top/top0812yr.html (accessed September 2009).
- U.S.-China Business Council. http://www.uschina.org/statistics/tradetable.html (accessed September 29, 2009).
- U.S.-China Trade Disputes. Institute for International Economics. Introduction, 3 http://www.piie.com (accessed September 25, 2009).
- U.S. Library of Congress. http://countrystudies.us/china/129.htm (accessed August 26, 2009).
- VanGrasstek, Craig. "The Benefits of U.S.-China Trade in Service." (2006). http://www.uscib.org/docs/china_services_study.pdf (accessed September 25, 2009).
- Venables, Anthony. "The China Effect." *Centre Piece* (2006). http://cep.lse.ac.uk/pubs/download/CP208.pdf (accessed September 19, 2009).
- Victor, David. "What Resource War?" http://www.nationalinterest.org (accessed November 17, 2008.

- Waltz, Kenneth. "The Myth of National Interdependence." In *The International Corporation*, edited by C. Kindleberger. Cambridge: MIT Press, 1997.
- Wang, Hui. "U.S.-China Bonds and Tensions." www.rand.org/pubs/monograph (accessed September 24, 2009).
- Wilborn, Thomas. "Security Cooperation with China: Analysis and a Proposal." (1994), http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB99.pdf (accessed December 5, 2009).
- World Trade Organization. "Country Statistics." http://stat.wto.org (accessed September 25, 2009).
- "Working Group on Environment in China-U.S. Relations Meeting Summaries." *China Environment Series*, no. 3.
- Wu, Jinglan. *Understanding and Interpreting Chinese Economic Reform*. South Western, Div of Thomson Learning, 2006.
- Xinbo, Wu. "Managing Crisis and Sustaining Peace between China and the U.S." *U.S. Institute of Peace* (2008). www.usip.org (accessed September 22, 2009).
- Yager, Loren. "U.S.-China Trade: Observations on Ensuring China's Compliance with World Trade Organization commitments," Testimony before the U.S.-China Economic and Security Review Commission (February 2005).
- Yahuda, Michael. *The International Politics of the Asia-Pacific*, 1945–1995. 2nd ed. Routledge, 2004.
- Yergin, Daniel. *The Prize: The Epic Quest for Oil, Money, and Power*. New York: Simon & Schuster, 1991.
- Zhang, Kevin Honglin. "Why is U.S. Direct Investment in China so Small?" *Contemporaty Ecopnomic Policy* (2000): 82–94.
- Zhang, Guobao. 3rd Forum on Sino-U.S. Oil and Gas Industries. <u>www.uschinaogf.org</u> (accessed November 17, 2009).
- _____. 6th Forum on Sino-U.S. Oil and Gas Industries, <u>www.usea.org</u> (accessed November 17, 2009).

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

- Defense Technical Information Center Ft. Belvoir, Virginia
- 2. Dudley Knox Library Naval Postgraduate School Monterey, California